

**IN THE CLAIMS:**

Please cancel Claims 21-28 and substitute therefore new Claims 29-38 as set forth below.

Claims 1-20 (Previously Canceled)

Claims 21-28 (Canceled)

29. (New) A method of operating a reactor to oxidize and neutralize chemical or biological materials housed in a container, comprising:

placing the container in the reactor and sealing the reactor;

activating a charge disposed within the reactor to open the container disposed within the reactor to release the chemical or biological material into a reaction chamber of the reactor;

injecting an aqueous hydrogen peroxide solution into the reaction chamber, wherein said solution comprises about 35 percent hydrogen peroxide and 65 percent water, and further includes one or more bases selected from the group consisting of calcium peroxide, magnesium peroxide, sodium percarbonate, and mixtures thereof; and

heating the chemical or biological material with the hydrogen peroxide, water, and bases contained within the chamber to a temperature of between 1,000 and 1,100 °F and a pressure of between 3,900 and 4,200 psig to initiate a supercritical water oxidation process.

30. (New) The method of claim 29, wherein said charge is a linear shaped charge and activating the charge produces a metal jet that cuts through the container.

31. (New) The reactor of claim 29, wherein said container is an energetic munition having a burster, and said charge is adapted to access the burster.

32. (New) The method of claim 31, wherein activating the charge detonates or deflagrates the burster of the container.

33. (New) The method of claim 29, further comprising containing exploding fragments of the container within a fragment-suppression system of the reactor after opening the container.

34. (New) The method of claim 29, wherein activating the charge is in response to receiving electrical power at the charge.

35. (New) The method of claim 29, wherein said base comprises sodium percarbonate.

36. (New) A method for oxidizing a chemical or biological material, the method comprising:

disposing a container containing the chemical or biological material within a tube of a fragment-suppression system located within a chamber of a reactor;

adding an aqueous hydrogen peroxide solution into the reaction chamber, wherein said solution comprises about 35 percent hydrogen peroxide and 65 percent water, and further includes one or more bases selected from the group consisting of calcium peroxide, magnesium peroxide, sodium percarbonate, and mixtures thereof;

activating a charge disposed within the fragment-suppression system to open the container to release the chemical or biological material into the chamber; and

heating the chemical or biological material with the aqueous hydrogen peroxide solution and base to a temperature of between 1,000 and 1,100 °F and a pressure of between 3,900 and 4,200 psig to initiate a supercritical water oxidation process.

37. (New) The method of claim 36, further comprising containing exploding fragments of the container within the tube after opening the container.

38. (New) The method of claim 36, wherein said base comprises sodium percarbonate.